REMARKS

Claims 1-7 and 9-20 are now pending in the present application. No claims have been amended by this Response. No new matter has been added.

Claims 1-7 and 9-20 have been rejected under 35 USC §103(a) as being unpatentable over US Patent No. 6,018,004 to Warzelhan et al. in view of US Patent No. 5,006,610 to Nakamura et al.

Claim 1 recites, among other features, from 0.1% to 15% by weight, based on the total weight of components i to ii, of a copolymer of styrene and glycidyl (meth)acrylate. At least these features of the independent claim cannot reasonably be considered to be suggested by the applied citations.

As appreciated by the Examiner, Warzelhan fails to suggest features corresponding to the above-quoted features of claim 1. However, the Office Action relies on col. 8, lines 40-49, of Nakamura for suggesting comparable features.

Specifically, the Office Action asserts that the following compound

CH₂—CH-CH₂OOC+CH₂)₃ + CH₂—CH
$$\frac{}{}$$
 CH+CH₂)₆ COOCH₂—CH—CH₂
O

(l: an integer of 2-5)

copolymer of styrene and glycidyl (meth)acrylate.

It is duly noted that for l=2, the following structure is obtained for the above formula in Nakamura:

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$$CH_2 \xrightarrow{H} C$$

By contrast, the reaction product of three styrene molecules and two glycidyl acrylates having two vicinal phenyl groups may result in the following structure:

a structural isomer thereof.

Further, using glycidyl methacrylates instead of glycidyl acrylates may result in the following structure:

$$CH_2 \xrightarrow{H} C^2 \xrightarrow{C} C \xrightarrow{C} C^2 \xrightarrow{C} H^2 \xrightarrow{C} C^2 \xrightarrow{C} C^$$

a structural isomer thereof.

However, the reaction between three styrene molecules and two glycidyl (meth)acrylates does not result in a compound having (CH₂)₅ or (CH₂)₆ moieties, indicated by the arrows in the structure at the top of this page, and as suggested at col. 8, lines 40-49, of Nakamura. Thus, Nakamura fails to suggest copolymers of styrene and glycidyl (meth)acrylate at the indicated passage in the Office Action.

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To be sure, the reaction product of, for example, three styrene molecules and two glycidyl methacrylates may be encompassed by formula (II) at col. 2, lines 59-67, of Nakamura.

However, the skilled artisan is not directed by Nakamura to use such compounds as epoxy compounds for the polyalkylene terephthalates suggested therein. In particular, Nakamura is not directed to <u>biodegradable</u> polymer blends. Neither component A which constitutes an aromatic polyester such as PET and PBT nor component B which constitutes a polyphenylene ether are biodegradable.

The object of the instantly claimed subject matter was not only to improve the mechanical properties of biodegradable polymer blends, but particularly to maintain the biodegradability. Typically, a polyfunctional additive such as the diepoxide suggested by Nakamura leads to cross linking and increases the molecular weight of the polymer blend. Accordingly, a skilled worker would expect a lower biodegradability from the combination of Warzelhan and Nakamura. The addition of Joneryl ADR 4368, which is a polyfunctional copolymer of styrene and glycidyl(meth)acrylate, however, improved the biodegradability of the polymer blend according to the instantly claimed subject matter. Please see the declaration by Robert Loos made on record on August 31, 2010. This fact was very surprising and could not have been derived from Warzelhan, Nakamura, or any permissible combination thereof.

Thus, a skilled artisan had no reasonable expectation that using compounds within the genus suggested in Nakamura, but not being explicitly provided for, would impart beneficial properties to the biodegradable moldings of Warzelhan.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

In the event the Examiner believes an interview might serve in any way to advance the prosecution of this application, the undersigned attorney is available at the telephone number noted below.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 22-0185, under Order No. 12810-00192-US1 from which the undersigned is authorized to draw.

Dated: July 12, 2011 Respectfully submitted,

Electronic signature: /Georg M. Hasselmann/

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